ESCORT®

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ESCORT®

PASSPORT® SR7

DISCREET ULTRA PERFORMANCE • PROFESSIONAL INSTALLATION ONLY

SUPERCHARGED RADAR/LASER DETECTION SYSTEM

Owner's Manual

Congratulations and Important Warning

Congratulations

Your new Passport SR7 is the most advanced custom-installed radar/laser detector available.

The Passport SR7 includes long-range X, K, and SuperWide Ka radar capability, improved Digital Signal Processing for superior range and reduced false alarms, our patented Mute and AutoMute, audible and visual band alerts, and all the performance you'd expect from Escort.

In addition, your new Passport SR7 introduces a new level of Radar/Laser defense including:

- Supercharged radar performance, for superior K, and Ka-band sensitivity
- Advanced EZ-Programming lets you instantly set up to 9 customized features
- Exclusive AutoSensitivity™ mode drastically reduces false alarms, plus Highway and City settings
- Ultra-bright alphanumeric display uses 280 LEDs for crystal clear information
- Exclusive ExpertMeter™ tracks and displays up to 8 radar signals
- New SpecDisplay provides numeric frequency for any radar signal
- Detects and decodes up to 64 Safety Warning Systems signals
- Exclusive vertical display option provides maximum installation flexibility
- Standard remote mute button provides one-touch mute, and volume adjustment
- Optional Laser Shifter™ ZR3 compatible

If you've used a radar detector before, a review of the Quick Reference Guide on page 4, and the EZ-Programming information on pages 10 and 11 will briefly explain the new features.

If this is your first detector, please read the manual in detail to get the most out of your new Passport's performance and features.

Please drive safely.

IMPORTANT INSTALLATION WARNING

Your new Passport must be installed by a professional. Car Audio specialists and many car dealers can install Passport for you.

Attempting to install the Passport SR7 without expertise in automotive electronic installations can cause personal injury during the installation, or can damage your Passport or your vehicle. If your vehicle is damaged during installation, its safety systems may be compromised, which could cause personal injury or property damage.

FCC Note:

Modifications not expressly approved by the manufacturer could void the user's FCC granted authority to operate the equipment.

Quick Reference Card

▼ Remove card along perforations ▼

Passport SR7 Quick Reference Card

There are 9 user-selectable options so you can customize your Passport SR7 for your own preferences.

The buttons labeled CITY and MUTE are also used to enter the Program Mode, REVIEW your current program settings, and to CHANGE any settings as desired. The words PROGRAM, REVIEW, and CHANGE are located on the front of the display, and are highlighted in gold graphics.

How to use EZ-Programming

1 **To enter Program Mode, press and hold both buttons down for 2 seconds.** (The unit will beep twice, and will display the word "Program").

2 **Then press the REVIEW button to review the current settings**. (You can either tap the button to change from item to item, or hold the button to scroll through the items).

3 **Press the CHANGE button to change any setting.** (You can either tap the button to change from setting to setting, or hold the button to scroll through all the options).

4 **To leave Program Mode, simply wait 8 seconds without pressing any button.** (The unit will display Complete, beep 4 times, and return to normal operation).

Factory Default Settings
To reset Passport to its original factory settings, press and hold the "CITY" and "MUTE" buttons while turning the power on. Passport's display will provide a "Reset" message, accompanied by an audible alert, acknowledging the reset.

An example

For example, here is how you would turn Passport's AutoMute feature off.

1 Enter the Program Mode by holding both the CITY and MUTE buttons down for 2 seconds. *Passport will beep twice and display* `Program`.

2 Press and hold the REVIEW button. *Passport will scroll through the categories, starting with Pilot Light (*`Pilot`*), then Power-on sequence (*`PwrOn`*), then Signal strength meter (*`Meter`*), and then AutoMute (*`aMute`*).*

3 Release the REVIEW button when Passport shows the AutoMute item. *Since the factory setting is for AutoMute to be on, Passport will display* `aMute ON`.

(If you accidentally don't release the Review button in time, and Passport goes to the next category, hold the Review button down again, and after Passport scrolls through all categories, it will begin again at the top of the list.)

4 Press the CHANGE button to change from `aMute ON` to `aMute OFF`.

5 To complete the Programming, simply wait 8 seconds without pressing any button. *Passport will display* `Complete`, *beep 4 times, and return to normal operation.*

EZ-Programming Details ▶

▶ Remove card along perforations ▶

Quick Reference Card

▼ *Remove card along perforations* ▼

Passport SR7 Quick Reference Card

Press the REVIEW button to go from one category to the next

Press the CHANGE button to change your setting within a category

DISPLAY	Disp STD	*Standard display
	Disp VERT	Vertical display
PILOT LIGHT (Power-on indication)	Pilot HWY	*Full word: Highway or Auto or City
	Pilot H	Letter: H or A or C
	Pilot H.>	Letter with scanning dot
	Pilot +	Symbol: + or • or –
	Pilot +.>	Symbol with scanning dot
	Pilot +>	Scanning symbol
	Pilot V	Vehicle voltage
POWER-ON SEQUENCE	PwrOn STD	*Standard power-on sequence
	PwrOn FST	Fast power-on sequence
SIGNAL STRENGTH METER	Meter STD	*Standard signal strength meter
	Meter EXP	ExpertMeter
	Meter SPC	SpecDisplay
AUTOMUTE	aMute ON	*AutoMute on
	aMute OFF	AutoMute off
AUDIOTONES	Tone STD	*Standard tones
	Tone LOUD	Loud tones
CITY MODE SENSITIVITY	City STD	*Standard City mode sensitivity
	City LoX	Low X band sensitivity in City Mode
	City NoX	No X band sensitivity in City Mode
BRIGHTNESS	Brt AUTO	*Brightness adjusts automatically
	Brt MIN	Minimum brightness when turned on
	Brt MED	Medium brightness when turned on
	Brt MAX	Maximum brightness when turned on
	Brt DARK	Dark Mode when Passport turned on
BANDS	Bands ALL	*All bands enabled
	Bands MOD	One or more bands has been modified

Turn bands "ON" or "OFF" by pressing the mute button

X ON *or* OFF
K ON *or* OFF
Ka ON *or* OFF
LSR ON *or* OFF *(or SHFT with ZR3)*
SWS ON *or* OFF

*Factory Default Settings

◀ *Remove card along perforations* ◀

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Power / Volume Control
Rotate the thumbwheel to turn Passport on and set the volume. (We recommend wiring the SR7 to a switched circuit so that it will turn on/off with your vehicles ignition).

City Button
Switches sensitivity modes between Highway, AutoSensitivity, and City settings. In general, we recommend the AutoSensitivity mode. *Page 6.*

Matrix Display
Passport's display will show "Highway," "Auto," or "City" as its standard power-on indication. *Page 5.* If you prefer, you can choose other power-on indications. *Pages 9-13.*

During an alert, the display will indicate the radar band, and a precise bar graph for the signal strength. *Page 7.*

You can program Passport for ExpertMeter, which displays up to 8 radar signals at once, or choose SpecDisplay mode, which provides the actual numeric radar frequency. *Pages 7-8.*

The display can also show Safety Radar text messages. *Pages 18-19.*

EZ-Programming
Passport is ready to go – just turn it on. But you can easily change 9 features for your preferences. Press both buttons to enter the Program Mode, then easily Review or Change your settings. *Pages 9-13.*

Mute Button
Briefly press this button on the display controller, or the standard remote mute button, to silence the audio for a specific alert. (The audio will alert you to the next encounter.) *Page 5.*

AutoMute
Passport's patented AutoMute automatically reduces the volume level of the audio alert. *Page 5.* If you prefer, you can turn AutoMute off. *Page 9.*

Power and volume control
To turn Passport on and adjust the alert tone volume level, rotate the thumbwheel on Passport's Display/Controller. Turn the control to the left to increase the audio volume. When you turn Passport on, it goes through a sequence of alerts.

If you prefer, you may program your Passport for a shorter power-on sequence. See the EZ-Programming section for details.

Power-on indication
After Passport's start-up sequence is complete, the matrix display will show "Highway," "City," or "Auto" to show which sensitivity mode is selected.

If you prefer, you can select alternate power-on displays. See the EZ-Programming section for details.

AutoMute
Your Passport has our patented AutoMute feature. After Passport alerts you to a radar encounter at your selected volume level, it automatically mutes the volume to a lower level. This keeps you informed without the annoyance of a continuous full-volume alert.

If you prefer, you can turn the AutoMute feature off. See the EZ-Programming section for details.

Mute
The Mute Button, located on Passport's front panel, or the installed Remote Mute Button, allows you to totally silence the audio alert during a radar encounter.

To mute the audio for a single specific signal, briefly press the Mute Button or the installed Remote Mute Button. After that radar encounter has passed, the mute will automatically reset and the audio will alert you to the next encounter.

Remote Mute / Volume Adjust
The Remote Mute Button, (standard with the SR7) can also be used to change the volume level without accessing the Display Controller. To change the volume level with the Remote Mute Button, simply press and hold. An audible tone will be generated, and the display will provide a bar graph for the volume level. Once the desired volume level is reached, simply release the Remote Mute Button. This volume setting will be stored in memory.

When the optional Laser Shifter ZR3 is installed, (see EZ-Programming section) the Remote Mute button can be used to manually stop "shifting" once you have corrected your speed. Simply press the Remote Mute Button twice during the "Laser Shifting" message, and the Shifter's will cease to transmit. The Shifter's will automatically reset within one minute. A reset message will be displayed to verify and acknowledge the reset.

Highway / Auto / City Switch

The "City" button selects Passport's sensitivity. We recommend the "Auto" (AutoSensitivity) mode for most driving.

Passport's exclusive AutoSensitivity mode provides long-range warning, with minimum false alarms. In this mode, Passport's internal computer continuously analyzes all incoming signals and intelligently adjusts the sensitivity – eliminating the majority of false alarms.

You can also select conventional "Highway" and "City" modes. When driving in urban areas where annoying x-band intrusion alarms and door openers are common, City Mode can be engaged to lower X-band sensitivity and reduce X-band alerts. Full sensitivity is maintained on all other bands. You can customize Passport's City Mode sensitivity. See the EZ-Programming section for details.

Display Brightness

Passport's display brightness is automatically adjusted to suit ambient light conditions in your vehicle. (The light sensor is located between the City and Mute buttons on the display controller and may dim the display momentarily when accessing one or both of these buttons).

If you prefer, you can program your Passport for a fixed brightness level (Maximum, Medium, Minimum, or Dark). See the EZ-Programming section for details.

Dark Mode

If you set Passport to its Dark Mode using its EZ-Programming, Passport changes to a very inconspicuous power-on indication: a very dim "AD," "HD," or "CD." (In this display, the A, H, or C indicates Auto, Highway, or City, and the D indicates Dark.)

When Passport is in the Dark Mode, the display will not show visual alerts when Passport detects signals. Only the audible alert will tell you of detected signals.

See the EZ-Programming section for more details.

Audible Alerts

For Radar signals:

Passport uses a Geiger-counter-like sound to indicate the signal strength and type of radar signal being encountered.

When you encounter radar, a distinct audible alert will sound and occur faster as the signal gets stronger. When the signal is very strong, the audible alerts will blend into a solid tone. This allows you to judge the distance from the signal source without taking your eyes from the road. Each band has a distinct tone for easy identification.

X-band = beep tone
K-band = raspy brap tone
Ka-band = double-brap tone

For Laser signals:

Since Laser signals are a possible threat no matter how weak, Passport alerts you to all laser signals with a full laser alert.

For Safety signals:

If you have turned on the SWS detection in Passport's programming, Passport will alert you to these signals with a double-beep tone, and a corresponding text message. A complete listing of the text messages is on page 19.

If you haven't programmed your Passport to decode these safety signals (see pages 9, 13, 19), it will still detect them as K-band radar signals.

Signal Strength Meter

Passport's new matrix display consists of 280 individual LED's, to provide an intuitive ultra-bright display of signal strength and text messages.

When Passport detects radar, it displays the band of the radar (X, K, or Ka), and a precise bar graph of signal strength

ExpertMeter

Passport's exclusive ExpertMeter option is an advanced display for experienced detector users. Please use Passport for a few weeks to get fully familiar with its other features before using ExpertMeter.

To use the ExpertMeter instead of the standard bar graph signal strength meter, you must select ExpertMeter in Passport's EZ-Programming (see pages 9-13).

Passport's ExpertMeter simultaneously tracks up to 8 radar signals. It shows you detailed information on up to 2 Ka-band, 2 K-band, and 4 X-band signals.

ExpertMeter can help you spot a change in your normal driving environment; for example, a traffic radar unit being operated in an area where there are normally other signals present.

The ExpertMeter is actually a miniature spectrum analyzer. It shows what band each signal is, its relative frequency within the band, and its signal strength.

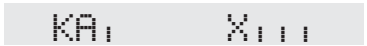
Above is the ExpertMeter Display if Passport was detecting 2 strong Ka-band, 2 strong K-band, and 4 strong X-band signals.

As you can see, there are vertical lines after each band designator. Each line shows a signal being detected. The height of each line shows the relative signal strength of that signal. The position of the line shows the relative frequency of the signal within the band.

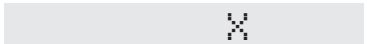
Note: If you use ExpertMeter, the brief signal shown in the power-on sequence when you turn on your Passport will also be in ExpertMeter: an "X" with a single vertical line.

A few more examples will help you better see how the ExpertMeter works.

Here ExpertMeter shows 1 strong K-band signal, and three X-band signals, 2 strong and 1 weak.



Here ExpertMeter shows 1 weak Ka-band signal, and 3 weak X-band signals.



On very weak signals, there will not be a vertical line at all. This shows a very weak X-band signal.

ExpertMeter Details

The band designators (X, K, Ka) will stay on the display for a few seconds after the signal has passed. This allows you to see what the unit detected, even on very brief signals.

However, the vertical lines representing individual signals continuously change (several times a second) to give you a continuous view of the signal strength of all radar signals present.

SpecDisplay

Passport's new SpecDisplay option is also designed for the advanced detector user. In this mode, Passport will display the actual numeric radar frequency being received.

Display shows a K-band signal at 24.150 GHz

Display shows a Ka-band signal at 34.700 GHz

Display shows an X-band signal at 10.525 GHz

Note: Even long-time detector users will require a significant amount of time to get familiar with this new level of information.

Optional

ZR3 Laser Shifter™ Configuration

Your Passport SR7 is fully compatible with Escort's ZR3 Laser Shifter. Once added, the integrated Shifters add a new level of laser defense to your SR7 remote – making it the ultimate defense against laser guns.

Once the Laser Shifter's have been connected to Passport's Interface, the internal computer will automatically make changes to the "Bands" programming options. Under the "Laser" option, the Shifters can now be programmed to receive only, or "Shift" (default once connected), an incoming laser signal. Also, during the start-up sequence, the SR7 will acknowledge the new configuration.

During a laser alert, the display will show "Front" "Lsr Shft" when a signal is received from the front, or "Rear" "Lsr Shft" when a signal is received from the rear. This message will be accompanied by the normal Laser alert tone.

For more information on the Laser Shifter ZR3, consult your 12-volt retailer.

There are 9 user-selectable options so you can customize your Passport for your own preferences. The buttons that are normally used for CITY and MUTE are used to enter the Program Mode, to REVIEW your current program settings, and to CHANGE any settings as desired. Pages 11-13 explain each option in more detail.

How to use EZ-Programming

1 **To enter Program Mode, press both buttons and hold for 2 seconds. (Passport will beep twice and display "Program."** (Brightness is at maximum during programming.)

2 **Then press the REVIEW button to review the current settings.** (You can either tap the button to change from item to item, or hold the button to scroll through the items.)

3 **Press the CHANGE button to change any setting.** (You can either tap the button to change from setting to setting, or hold the button to scroll through all the options).

4 **To leave the Program Mode, simply wait 8 seconds without pressing any button.** (The unit will display "Complete," beep 4 times, and return to normal operation.)

(To quickly return to all of the factory defaults, press and hold the CITY and MUTE buttons while turning on the unit.)

An example

For example, here's how you would turn Passport's AutoMute feature off.

1 Enter the Program Mode by holding both buttons down for 2 seconds. *Passport will beep twice and display* Program.

2 Press and hold the REVIEW button. *Passport will scroll through the categories, starting with Display* Disp, *then Pilot Light* Pilot, *then Power-on sequence* PwrOn, *then Signal strength meter* Meter, *then AutoMute* aMute.

3 Release the REVIEW button when Passport shows the AutoMute item. *Since the factory setting is for AutoMute to be on, Passport will display* aMute ON.

(If you accidentally don't release the Review button in time, and Passport goes to the next category, hold the Review button down again, and after Passport scrolls through all categories, it will begin again at the top of the list.)

4 Press the CHANGE button to change from aMute ON to aMute OFF.

5 To complete the Programming, simply wait 8 seconds without pressing any button. *Passport will display* Complete, *beep 4 times, and return to normal operation.*

Overview of EZ-Programming Options

Press the REVIEW button to go from one category to the next

Press the CHANGE button to change your setting within a category

DISPLAY	Disp STD	*Standard display
	Disp VERT	Vertical display
PILOT LIGHT (Power-on indication)	Pilot HWY	*Full word: Highway or Auto or City
	Pilot H	Letter: H or A or C
	Pilot H.>	Letter, with scanning dot
	Pilot +	Symbol: + or • or –
	Pilot +.>	Symbol, with scanning dot
	Pilot +>	Scanning symbol
	Pilot V	Vehicle voltage
POWER-ON SEQUENCE	PwrOn STD	*Standard power-on sequence
	PwrOn FST	Fast power-on sequence
SIGNAL STRENGTH METER	Meter STD	*Standard signal strength meter
	Meter EXP	ExpertMeter
	Meter SPC	SpecDisplay
AUTOMUTE	aMute ON	*AutoMute on
	aMute OFF	AutoMute off
AUDIOTONES	Tone STD	*Standard tones
	Tone LOUD	Loud tones
CITY MODE SENSITIVITY	City STD	*Standard City mode sensitivity
	City LoX	Low X-band sensitivity in City Mode
	City NoX	No X-band sensitivity in City Mode
BRIGHTNESS	Brt AUTO	*Brightness adjusts automatically
	Brt MIN	Minimum brightness
	Brt MED	Medium brightness
	Brt MAX	Maximum brightness
	Brt DARK	Dark Mode
BANDS	Bands ALL	*All bands enabled
	Bands MOD	One or more bands has been modified

Turn bands "ON" or "OFF" by holding down the Mute button

X ON *or* OFF
K ON *or* OFF
Ka ON *or* OFF
LSR ON *or* OFF *(or* SHFT *with optional ZR3)*
SWS ON *or* OFF

***Passport's Factory Default Settings**
To reset Passport to its original factory settings, press and hold the "CITY" and "MUTE" buttons while turning the power on. Passport's display will provide a "Reset" message, accompanied by an audible alert, acknowledging the reset.

Details of EZ-Programming Options

Display

Disp STD (Display standard)
This is the standard setting for use when Passport's Display is mounted horizontally.

DispVERT (Display vertical)
This setting is used when Passport's Display is mounted vertically, for example mounted on the side of a center console. In this setting, Passport's Display is mounted vertically.

Pilot Light (Power-on indication)

Note: When you are using the Dark mode, the display will only show HD, AD, or CD, (Highway-Dark, Auto-Dark, or City-Dark).

PilotHWY (Full description)
In this setting, Passport will display "Highway," "City," or "Auto" as its power-on indication. (factory default)

Pilot H (Letter)
In this setting, Passport will display "H" for Highway, "C" for City, or "A" for Auto.

Pilot H.> (Letter with scanning dot)
In this setting, Passport will display "H" for Highway, "C" for City, and "A" for Auto. Also, a single dot will continuously scroll across the display.

Pilot+ (Symbol)
In this setting, Passport will display "+" for Highway, "." for Auto, and "–" for City.

Pilot+.> (Symbol with scanning dot)
In this setting, Passport will display "+" for Highway, "." for Auto, and "–" for City. Also, a single dot will continuously scroll across the display.

Pilot+> (Scanning symbol)
In this setting, Passport will display "+" for Highway, "." for Auto, and "–" for City. Each will continuously scroll across the display.

Pilot V (Vehicle voltage)
In this setting, Passport will display "H" for Highway, "C" for City, and "A" for Auto, and the vehicle's voltage. If the vehicle's voltage drops below 10.5 volts, a low voltage warning will be displayed, followed by an audible alert. A high voltage warning is also given when the vehicle's voltage goes above 16.5 volts.

Power-on Sequence

PwrOnSTD (Standard)
In this setting, each time you turn on Passport, it will display "Passport," "SR7," "LASER," "Ka-band," "K-band," "X-band," followed by a brief X-band alert. It then confirms communications to the front radar receiver, and front and rear laser receivers. If a communications error occurs, the appropriate error message will be displayed. (see page 21 for error messages)

Note: If there is a problem with the front laser receiver or wiring after the initial start-up sequence, Passport will briefly display "LsrF ERR." If there is a problem with the rear laser receiver or wiring after the initial start-up sequence, Passport will briefly display "LsrR N/A."

In both cases, Passport will continue to receive radar signals, but will not receive laser signals. If there is a problem with the front radar receiver or wiring after the initial start-up sequence, Passport will display "Front N/A," and will then continue to display "Check," "Receiver," "Wiring." Passport will not operate in this condition. Please contact your installer if this occurs.

PwrOnFST (Fast power-on)
This setting shortens Passport's start up sequence to single beep, eliminating the words "Passport," "SR7," "LASER." "Ka-band," "K-band," "X-band," from the start-up sequence.

Signal Strength Meter

MeterSTD (Standard meter)
The meter displays the band, and bar graph showing signal strength. (factory default)

MeterEXP (ExpertMeter)
The meter simultaneously tracks up to 2 Ka-band, 2 K-band, and 4 X-band signals.

MeterSPC (SpecDisplay)
The meter displays the actual numeric frequency of the radar signal being received.
Note: See more details on pages 7-8.

AutoMute

aMute ON (AutoMute on)
In this setting, Passport's audio alerts will initially be at the volume you set, but after a few seconds, Passport will automatically reduce the volume level, to keep you informed, but not annoyed. (factory default)

aMuteOFF (AutoMute off)
With AutoMute off, Passport's audio alerts will remain at the volume you set for the duration of the radar encounter.

Audio Tones

Tone STD (Standard tones)
This setting uses more pleasing tones. (factory default)

ToneLOUD (Loud tones)
This setting uses tones that are more piercing, and easier to hear in a louder vehicle.

City Mode Sensitivity

City STD (Standard)
In this setting, when you put Passport in the City mode, X-band sensitivity is significantly reduced, to minimize annoyance from X-band intrusion alarms and motion sensors. (factory default)

City LoX (Low X-band sensitivity)
In this setting, when you put Passport in the City mode, X-band sensitivity is reduced more than the standard setting. This will reduce X-band alarms from other sources even further, but also significantly reduces range to X-band traffic radar.

City NoX (No X-band sensitivity)
In this setting, when you put Passport in the City mode, Passport will not respond to any X-band signals. ***WARNING: Only choose this setting if you are absolutely certain that there are no X-band traffic radar units where you drive.***

Note: These settings only apply when Passport is operated in City mode. X-band sensitivity is not affected when used in "Auto" or "Highway" modes.

Brightness

Brt AUTO (Auto)
Display brightness automatically adjusted to suit the ambient lighting in your vehicle.

Brt MIN (Minimum)
Sets display to minimum brightness.

Brt MED (Medium)
Sets display to medium brightness.

Brt MAX (Maximum)
Sets display to maximum brightness.

Brt DARK (Dark)
In this setting, Passport will only display a very dim HD, AD, or CD for the power-on indication, and will not show any visual alerts when signals are detected.

Bands

BandsALL
In this setting, all radar, laser, and SWS frequencies are monitored. This is the factory default setting, and it is highly recommended that you use your Passport in this mode.

BandsMOD
In this setting, Passport will warn you with an audible alert and a text message, that one or more bands have been turned off in programming (i.e. "SWS OFF"). This warning is displayed during the start-up sequence (standard or fast).

WARNING: Do not disable a radar or laser band unless you are certain it is not used for speed measurement in your area.

Although Passport has a comprehensive warning system and this handbook is as complete as we can make it, only experience will teach you what to expect from your Passport and how to interpret what it "tells" you. The radar alerts you receive are affected by the specific type of radar being used, the type of transmission (continuous or instant-on) and the location of the radar source.

The following examples will give you an introduction to understanding Passport's warning system for radar, laser and safety alerts.

Alert	Explanation
Passport begins to sound slowly, then the rate of alert increases until the alert becomes a solid tone. The Signal Meter ramps accordingly.	You are approaching a continuous radar source aimed in your direction.
Passport emits short alerts for a few seconds and then falls silent only to briefly alert and fall silent again.	An instant-on radar source is being used ahead of you and out of your view.
Passport suddenly sounds a continuous tone for the appropriate band received. All segments in the Signal Strength Meter are lit.	An instant-on radar source or laser source is being used nearby. This kind of alert requires immediate attention!
A brief laser alert.	Laser is being used in the area. Because laser is inherently difficult to detect, any laser alert may indicate a source very close by.
Passport receives weak signals. These signals may be a little stronger as you pass large, roadside objects. The signals increase in frequency.	A moving patrol car with continuous radar is overtaking you from behind. Because these signals are reflected (reflections are increased by large objects), they may or may not eventually blend into a solid tone even when the patrol car is directly behind you.

Alert	Explanation
Passport alerts slowly for awhile and then abruptly jumps to a strong alert.	You are approaching a radar unit concealed by a hill or an obstructed curve.
Passport alerts intermittently. Rate and strength of alerts may be consistent or vary wildly.	A patrol car is travelling in front of you with a radar source aimed forward. Because signals are sometimes reflected off of large objects and sometimes not, the alerts may seem inconsistent.
Passport alerts intermittently. Rate and strength of signal increases with each alert.	A patrol car is approaching from the other direction, sampling traffic with instant-on radar. Such alerts should be taken seriously.
Passport gives an X-band alert intermittently.	You are driving through an area populated with radar motion sensors (door openers, burglar alarms, etc.). Since these transmitters are usually contained inside buildings or aimed toward OR away from you, they are typically not as strong or lasting as a real radar encounter. ***CAUTION: Since the characteristics of these alerts may be similar to some of the preceding examples, overconfidence in an unfamiliar area can be dangerous. Likewise, if an alert in a commonly traveled area is suddenly stronger or on a different band than usual, speed radar may be set up nearby.***

How Radar Works

Traffic radar, which consists of microwaves, travels in straight lines and is easily reflected by objects such as cars, trucks, even guardrails and overpasses. Radar works by directing its microwave beam down the road. As your vehicle travels into range, the microwave beam bounces off your car, and the radar antenna looks for the reflections. Using the Doppler Principle, the radar equipment then calculates your speed by comparing the frequency of the reflection of your car to the original frequency of the beam sent out.

Traffic radar has limitations, the most significant of these being that it typically can monitor only one target at a time. If there is more than one vehicle within range, it is up to the radar operator to decide which target is producing the strongest reflection. Since the strength of the reflection is affected by both the size of the vehicle and its proximity to the antenna, it is difficult for the radar operator to determine if the signal is from a sports car nearby or a semi-truck several hundred feet away.

Radar range also depends on the power of the radar equipment itself. The strength of the radar unit's beam diminishes with distance. The farther the radar has to travel, the less energy it has for speed detection. Because intrusion alarms and motion sensors often operate on the same frequency as X-Band radar, your Passport will occasionally receive non-police radar signals. Since these X-Band transmitters are usually contained inside of buildings or aimed toward the ground, they will generally produce much weaker readings than will a true radar encounter. As you become familiar with the sources of these pseudo alarms in your daily driving, they will serve as confirmation that your Passport's radar detection abilities are fully operational.

How Laser (Lidar) Works

Laser speed detection is actually LIDAR (Light Detection And Ranging). LIDAR guns project a beam of invisible infrared light. The signal is a series of very short infrared light energy pulses which move in a straight line, reflecting off your car and returning to the gun. LIDAR uses these light pulses to measure the distance to a vehicle. Speed is then calculated by measuring how quickly these pulses are reflected given the known speed of light.

LIDAR (or laser) is a newer technology and is not as widespread as conventional radar; therefore, you may not encounter laser on a daily basis. And unlike radar detection, laser detection is not prone to "false" alarms. Because LIDAR transmits a much narrower beam than does radar, it is much more accurate in its ability to distinguish between targets and is also more difficult to detect. ***As a result, even the briefest laser alert should be taken seriously.***

There are limitations to LIDAR equipment. LIDAR is much more sensitive to weather conditions than RADAR, and a LIDAR gun's range will be decreased by anything affecting visibility such as rain, fog, or smoke. A LIDAR gun cannot operate through glass and it must be stationary in order to get an accurate reading.

Because LIDAR must have a clear line of sight and is subject to cosine error (an inaccuracy which increases as the angle between the gun and the vehicle increases) police typically use LIDAR equipment parallel to the road or from an overpass. LIDAR can be used day or night.

How Safety Warning Systems Works

Safety Warning Systems, or SWS, is a modified K-band radar signal used to transmit important driving related information.

From the factory, your Passport is programmed with SWS turned ON. If SWS is not used in your area, you can simply turn SWS reception OFF by using Passport's EZ-Programming feature.

The SWS system has 64 possible messages (60 allocated). The SWS messages your Passport can decode and display are listed on the facing page.

Note: Some of the safety messages have been condensed, so each message can be displayed on one or two screens on Passport's eight character display.

Since Safety radar technology is relatively new and the number of transmitters in operation is not yet widespread, you will not receive Safety signals on a daily basis and should not be surprised to encounter emergency vehicles, road hazards and railroad crossings that are unequipped with these transmitters and, therefore, fail to provide a signal. As Safety transmitters become more prevalent (the number of operating transmitters is growing every day), these Safety radar signals will become more common.

For more information and details about SWS safety radar, visit their web site at www.swslc.com.

SWS Text Messages

1	WorkZone	
2	Road	Closed
3	Bridge	Closed
4	WorkCrew	Highway
5	WorkCrew	Utility
6	Detour	
7	Truck	Detour
8	MustExit	
9	Rtlane	Closed
10	CntrLane	Closed
11	LeftLane	Closed
12	Future	Use
13	Police	
14	Train	
15	Low	Overpass
16	BridgeUp	
17	Bridge	Wt Limit
18	RockSlid	Area
19	School	Zone
20	Road	Narrows
21	Sharp	Curve
22	Croswalk	
23	Deer	Crossing
24	Blind or	Deaf Kid
25	SteepUse	LowGear
26	Accident	
27	PoorRoad	Surface
28	Loading	ScholBus
29	DontPass	
30	Dangrous	Intrsect
31	Emergncy	Vehicle
32	Future	Use
33	HighWind	
34	Severe	Weather
35	HeavyFog	
36	Flooding	
37	BridgIce	
38	RoadIce	
39	Dust	Blowing
40	Sand	Blowing
41	Blinding	Snow
42	Future	Use
43	RestArea	
44	RestArea	w/servic
45	24hrFuel	
46	Insp Stn	Open
47	Insp Stn	Closed
48	Reduced	Speed
49	Speed	Enforced
50	HazMatls	Exit
51	Expect	Delay
52	10 Min	Delay
53	20 Min	Delay
54	30 Min	Delay
55	1 Hour	Delay
56	Traffic	TunRadio
57	Pay	Toll
58	Trucks	ExitRght
59	Trucks	ExitLeft
60	Future	Use
61	Emerg	Veh Mvng
62	Police	Pursuit
63	Oversize	Vehicle
64	SloMovng	Vehicle

Problem	Solution
Passport beeps briefly at the same location every day, but no radar source is in sight.	• An X-band motion sensor or intrusion alarm is located within range of your route. With time, you will learn predictable patterns of these signals.
Passport does not seem sensitive to radar or laser.	• Passport may be in City Mode. • Radar band(s) are turned off in programming.
Passport did not alert when a police car was in view.	• VASCAR, (Visual Average Speed Computer And Recorder) a stopwatch method of speed detection, may be in use. Officer may not have radar or laser unit turned on.
Passport did not provide a Safety signal while within range of an emergency vehicle.	• Safety transmitters may not be commonly used in your area.
Passport's audible alerts are less loud after the first few alerts.	• Passport is in AutoMute Mode. See page 5 for details.
Passport's power-on sequence reoccurs while you are driving.	• A loose power connection can cause Passport to be briefly disconnected, and will retrigger the power-on sequence.
Your 14-year old son has changed all 9 of the EZ-Programming options.	• You can return all of the programming options to the factory defaults by holding down the City and Mute buttons while you turn Passport on.
Passport will not turn on.	• Check that volume control is ON. • Check that vehicle ignition is ON. • Check all connections.
Passport's Display feels warm.	• It is normal for Passport to feel warm.

Explanation of Displays

LsrF ERR	There is a problem with the front Laser Receiver. There could be an unplugged connection, damaged wiring, or a problem with the front Laser Receiver. After Passport alerts you to this, it will then resume operation with the front radar receiver and rear laser only.
LsrR N/A	There is a problem with the rear Laser Receiver. It could be an unplugged connection, damaged wiring, or a problem within the rear Laser Receiver itself. After Passport alerts you to this, it will then resume operation with the front radar and Laser Receiver only.
Check Receiver Wiring	There is a problem with the front receiver. It could be an unplugged connection, damaged wiring, or a problem within the front receiver itself. Passport will continue to display this message, and will not operate until the problem has been repaired.
HD	Sensitivity control is in Highway mode, display is in Dark Mode (page 13)
AD	Sensitivity control is in Auto mode, display is in Dark Mode (page 13)
CD	Sensitivity control is in City mode, display is in Dark Mode (page 13)
PilotHWY	One of the many programming messages (pages 9-13)
WorkZone	One of the many Safety Radar messages (page 19)
xl, or Kl, or KAl, etc.	Passport has been programmed in the ExpertMeter Mode (pages 7-8)
Self Cal	Passport is running a self-calibration test.
Rcvr ERR	Passport's radar receiver has failed to calibrate. Contact your Dealer for repair.
ShiftOFF	Optional Laser Shifters were manually shut off during a laser alert.
Comm ERR	Serial communications between the interface and the display have been interrupted. Contact your dealer for repair.

Service Procedure

If your Passport ever needs service, please follow these steps:

1 Check the troubleshooting section of this manual. It may have a solution to your problem.

2 Contact your installing dealer. They will evaluate your unit and arrange repairs if necessary.

Parts

Replacement parts are available from your installing dealer.

Accessories

The following accessories are available through your local dealer:

• 12-volt Amplified External Speaker.

ESCORT One Year Limited Warranty

ESCORT warrants your Passport against all defects in materials and workmanship for a period of one (1) year from the date of the original purchase, subject to the following terms and conditions:

The sole responsibility of ESCORT under this Warranty is limited to either repair or, at the option of ESCORT, replacement of the Passport detector. There are no expressed or implied warranties, including those of fitness for a particular purpose or merchantability, which extend beyond the face hereof. Some states do not allow limitations on how long an implied warranty lasts, so the above limitations may not apply to you.

This warranty does not cover installation, removal or reinstallation charges. ESCORT is not liable for any incidental or consequential damages arising from the use, misuse, installation, or mounting of the Passport. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

This Warranty gives you specific rights. You may have other legal rights which vary from state to state. This Warranty does not apply if the serial number on the housing of the Passport has been removed, or if your Passport has been subjected to physical abuse, improper installation, or modification.

Register online: @www.escortradar.com

Remove card along perforations

ESCORT®

ESCORT PRODUCT REGISTRATION CARD

If you purchased your detector directly from Escort, you do not need to fill this out.

If you did not purchase your detector directly from Escort, please fill out this section and return to us, or register online at our web address: www.escortradar.com.

1. First Name:_____ Middle Initial____ Last Name_____

   Address_____

   City_____ State_____ ZIP_____

   Phone Number (In case we have a question)_____

2. Product Purchased_____ Model_____ Serial Number_____

3. Place of Purchase_____ Date_____ Price_____

4. Primary reason for purchasing this ESCORT product_____

   _____

   _____

BUSINESS REPLY MAIL

FIRST-CLASS MAIL PERMIT NO 300 WEST CHESTER OH

POSTAGE WILL BE PAID BY ADDRESSEE

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ESCORT INC
5440 WEST CHESTER RD
WEST CHESTER OH 45069-9789

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IN THE
UNITED STATES

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Features and Specifications

Operating Bands
- X-band 10.525 GHz ± 25 MHz
- K-band 24.150 GHz ± 100 MHz
- Ka-band 34.700 GHz ± 1300 MHz
- Laser 900nm, 33 MHz bandwidth

Radar Receiver / Detector Type
- Superheterodyne, GaAs FET VCO
- Scanning Frequency Discriminator
- Digital Signal Processing (DSP)
- 4-bit High-Resolution A-to-D Converter

Laser Detection
- Quantum Limited Video Receiver
- Multiple Laser Sensor Diodes (3F, 3R)

Display Type
- Text/Matrix 280 AlGaAs LED
- Bar Graph or ExpertMeter
- Automatic Brightness Control

Power Requirement
- 12VDC, Negative Ground

Programmable Features
- Display (Horizontal or Vertical)
- Power-On Indication
- Power-On Sequence
- Signal Strength Meter
- AutoMute
- Audio Tones
- City Mode Sensitivity
- Display Brightness
- Bands

Sensitivity Control
- AutoSensitivity
- Highway
- City

Auto Calibration Circuity

Complete VG2 Immunity

Dimensions (Inches)
- Display/Controller: 4.2 x 1.4 x .55
- Radar Receiver: 3.75 x 3.15 x 1.75
- Front Laser Receiver: 4.65 x 1.8 x 0.8
- Rear Laser Receiver: 6.0 x 1.0 x .65

Patented Technology

Passport is covered by one or more of the following US patents.
6,400,305 6,249,218 6,069,580 5,600,132
5,587,916 5,668,554 5,559,508 5,365,055
5,347,120 5,446,923 5,402,087 5,305,007
5,206,500 5,164,729 5,134,406 5,111,207
5,079,553 5,049,885 5,049,884 4,961,074
4,954,828 4,952,937 4,952,936 4,939,521
4,896,855 4,887,753 4,862,175 4,750,215
4,686,499 4,631,542 4,630,054 4,625,210
4,613,989 4,604,529 4,583,057 4,581,769
4,571,593 4,313,216 D314,178 D313,365
D310,167 D308,837 D296,771 D288,418
D253,752
Passport is also covered by one or more of the following Canadian patents:
1,295,715 1,295,714 1,187,602 1,187,586
Other patents pending.